

Immune Checkpoint Inhibitor Induced Lymphocytic Esophagitis



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INTRODUCTION

Immune checkpoint inhibitors (ICIs) have emerged as effective treatments for a wide variety of advanced malignancies. However, their use is associated with numerous immune-related toxicities, notably colitis and hepatitis within the gastrointestinal tract. We present a rare case of checkpoint inhibitor-associated lymphocytic esophagitis

CASE DESCRIPTION

A 79-year-old man with a past medical history significant for prostate cancer status post radiation therapy, renal clear cell carcinoma status post nephrectomy with recurrent metastasis to the lungs and bone on treatment with nivolumab and radiation therapy, presented to the hospital with acute onset right upper quadrant pain, nausea, and dysphagia to solids. Patient arrived hemodynamically stable with acutely elevated admission labs remarkable for AST 250 IU/L, ALT 331 IU/L, alkaline phosphatase 429 IU/L, total bilirubin 4.6 mg/dL, and direct bilirubin 3.2 mg/dL. Right upper quadrant ultrasound revealed cholelithiasis and top normal common bile duct measuring 8 mm. ERCP was notable for extraction of five pigmented stones from the common bile duct.

Figure 1A. Endoscopy image showing inflamed lower third of the esophagus with erythema and subtle furrows.

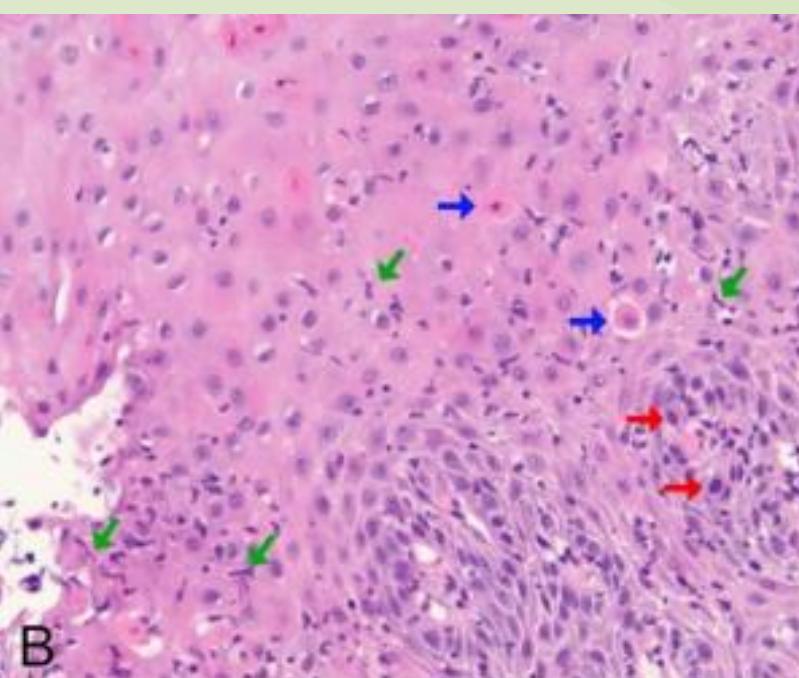


Figure 1B. Esophageal biopsy specimen demonstrating features of lymphocytic esophagitis. Inflamed squamous epithelium with an infiltrate of lymphocytes which appear as "squiggle cells" because of their stretched-out appearance (green arrows) and associated dyskeratotic keratinocytes (blue arrows). The red arrows indicate the basal keratinocytes.

CASE DESCRIPTION

EGD was notable for Schatzki's ring at the gastroesophageal junction which was dilated to 15 mm; and inflamed lower third and upper third esophagus with subtle furrows (Figure 1A). Biopsies were obtained. After endoscopy, patient was started on oral pantoprazole 40 mg twice a day. After successful inpatient laparoscopic cholecystectomy and subsequent discharge, esophageal pathology revealed findings including abundant lymphocytic infiltration of the epithelium, dyskeratotic keratinocytes, and acanthosis raising suspicion for nivolumab associated lymphocytic esophagitis (Figure 1B). Patient was started on a 6-week prednisone taper starting with 40 mg with plans for repeat EGD 2 months after index EGD.

DISCUSSION

Gastrointestinal toxicity manifests in up to 35% of patients treated with ICIs, with colitis and diarrhea being the most common pathologies. Upper GI toxicity mostly affects the stomach and duodenum. Isolated esophagitis is rare. In a recent retrospective study of 21 patients with ICI esophagitis, only 4 had isolated esophageal involvement. Treatment includes proton pump inhibitors and steroids; however, efficacy is not well described due to the rarity of the condition.